PREPRODUCTION INITIATIVE
FIRE HOSE CLEANER
TEST PLAN

Site: Naval Base Ventura County (NBVC)

1.0 OBJECTIVE

This test plan describes the data collection procedure for evaluating the use of a fire hose cleaner in a Navy operational environment. The data will be used to determine the system's efficiency, effectiveness, and overall success with respect to cleaning fire hoses. In addition, the data will be used to determine the environmental and cost benefits of using such units versus the present cleaning method.

2.0 DESCRIPTION

Currently, fire hoses at Naval Base Ventura County (NBVC) are regularly cleaned and dried after being used during actual fires as well as fire training exercises. The purpose of cleaning and drying the fire hoses is to remove hydrocarbons and other debris that collect during use. The current method of cleaning fire hoses at NBVC is to stretch a section of the hose on the ground over a wash rack. Each section of the hose is scrubbed by hand using brushes dipped in water and detergent. The hose is rinsed off with a garden hose, and the wash water and other debris are washed into the wash rack. The hose is then hung from a tower to dry, which can take 5 to 7 days. This cleaning and drying process is both time-consuming and laborious.

To simplify the method above, the fire hose cleaner (FHC) will be evaluated. The FHC automatically scrubs the top, bottom and edges of the hose, and squeegees the water back into the system. The washer is contained on a mobile cart and consists of a soaking tank, neoprene wringer rollers that propel the hose through the washer, nylon scrubbing brushes, a 1-hp drive motor, and drain fittings. An external take-up reel wraps up the hose as it exits the washer. Because most of the water is squeegeed out after being scrubbed by the system, the FHC's effect on drying time will be determined during the testing period.

3.0 TEST PLAN

This test plan will be used to evaluate the effectiveness of the Circul-Air RotoJet, distributed by L.N. Curtis and Sons. Quantitative and qualitative data will be collected and used to evaluate the system's ability to achieve expected environmental benefits, cost savings, and mission-readiness improvement.

3.1 Approach

One RotoJet will be used during the implementation of this test plan. Quantitative and qualitative data will be collected by completion of the Fire Hose Cleaner Data Collection Sheet, Repair Log, and Periodic Maintenance Sheet.

3.2 Instructions for Completing the Fire Hose Cleaner Data Collection Sheet

- **Date**—Record, using one line per hose, the date on which the cleaning was performed.
- **Number of Operators—**Record the number of operators who performed the cleaning.
- **Length of Hose—**Record the length of hose cleaned.
- **Cleaning Time—**Record the time cleaning started and the time cleaning was finished.
- **Drying Time—**Record the time drying the hose started and record the time the hose was completely dry.
- **Type and Quantity of Detergent Used—**Record the type and quantity of detergent used.
- **Cleanliness of Hose—**Record whether the hose was less, same, or more clean after cleaning by the fire hose cleaner. This data is based on the observation of the personnel inspecting the hose.
- **Was the Unit Drained? How many gallons?—**Record the amount of water, in gallons, that was drained after cleaning the hose.

In the Qualitative Assessment section, record any observations, comments, or suggestions pertaining to the overall performance of the unit.

3.3 Instructions for Completing the Repair Log and Periodic Maintenance Sheet

The Repair Log should be filled in when a repair is completed. The Periodic Maintenance Sheet should be completed when maintenance is performed on the fire hose cleaner. If repairs are necessary, please contact Geneen McQuaid or Jill Hurnywicz. Due to contract requirements, do not contact the vendor directly—except in an emergency.

The Repair Log is completed when the FHC needs repair. Record any repairs(s) completed. Describe and record the required repair, cause, parts, cost, repair time, downtime, and recommended actions to prevent recurrence. *Note: All repairs must be reported to Geneen McQuaid or Jill Hurnywicz before the repair is mad, unless there is an emergency.*

The manufacturer recommends that periodic maintenance be performed on the FHC every 3, 6, and 12 months. The Periodic Maintenance Sheet will help to keep track of the maintenance requirements. If the month is December 2003, March 2004, June 2004 or September 2004, please complete the Periodic Maintenance Sheet. Record the times maintenance was started and completed.

4.0 REPORTING

NBVC has approved the use of these data collection sheets for this project. As previously described, the Fire Hose Cleaner Data Collection Sheet will be completed each time the system is used, and the Repair Log Sheet and the Periodic Maintenance Sheet will be completed when necessary. Data will be collected for one year. During the evaluation period, the data sheets will be faxed to Geneen McQuaid/Jill Hurnywicz (see Section 4.1, Points of Contact, for the fax number) monthly, at a minimum. The final report, as prepared by UTRS, will include information on the system's overall performance, cost-effectiveness, environmental benefits and ability to interface with site operations.

4.1 Points of Contact

If at any time during the prototype period the equipment malfunctions or you need consumables or technical support, please contact the assigned POC at UTRS and/or NAVAIR Lakehurst as listed below. Do not contact the vendor directly unless there is an emergency. Do not make any repairs to the equipment without specific direction from the vendor as this may invalidate warranties. Please discuss any ideas you may have regarding equipment modifications or improvements with NAVAIR Lakehurst or UTRS. Do not discuss your ideas with the vendor as contractual problems may arise. NAVAIR Lakehurst and UTRS will arrange and procure all reasonable orders for consumables and repairs as soon as possible to ensure minimal impact to your site's operations. Please keep in mind that regular communication with NAVAIR Lakehurst and UTRS, and regular submittal of your data sheets are both vital to the success of this technology demonstration.

POC	Geneen McQuaid	Jill Hurnywicz
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Fire Hose Cleaner Data Collection

Date	No. of Operators	Length of Hose	Cleaning Time		Drying Time		Type and Quantity of Detergent Used	Cleanliness of hose is less, same or more clean	Was the unit drained? How many gallons?
			Start	Finish	Start	Finish			

Please comment on the overall performance of the unit:

Please comment on any problems encountered or any possible improvement to this unit:

***ATTENTION*: Complete this form and fax to Jill Hurnywicz (732) 323-4917 or (DSN 624-4917) and Geneen McQuaid at (856) 667-7586.**

Repair Log

Date_____ **Operator**_____

REPAIR

List any repair(s) required:

_____

_____

Describe the cause of the required repair(s):

_____

_____

List repair parts, cost (if known), and time required to complete the repair:

_____

_____

List the amount of downtime due to repair:

_____

_____

Detail corrections/suggestions made to prevent future recurrences:

_____

_____

***ATTENTION*: Complete this form as repairs are required and fax to Jill Hurnywicz, (732) 323-4917 or (DSN 624-4917), and Geneen McQuaid, (856) 667-7586.**

FHC Periodic Maintenance Sheet

To be performed in December 2003

Maintenance Operation	Start Time	Finish Time
Apply small amount of oil to all bushings and grease motor drive bearings		

To be performed in March 2004

Maintenance Operation	Start Time	Finish Time
Apply small amount of oil to all bushings and grease motor drive bearings		
Inspect v-belt, chains, sprockets and sheaves for excessive wear		
Check chains and belt for tightness, be sure not to overtighten		

To be performed in June 2004

Maintenance Operation	Start Time	Finish Time
Apply small amount of oil to all bushings and grease motor drive bearings		

To be performed in September 2004

Maintenance Operation	Start Time	Finish Time
Apply small amount of oil to all bushings and grease motor drive bearings		
Inspect v-belt, chains, sprockets and sheaves for excessive wear		
Check chains and belt for tightness, be sure not to overtighten		
Inspect brushes for excessive wear		
Check electrical cord for cracks		
Inspect brush bushing for wear		

Comments or Suggestions:

Fax at the end of the appropriate month to: Jill Hurnywicz at (732) 323-4917, DSN 624-4917 and Geneen McQuaid at (856) 667-7586.